In re Application of: Fernandez et al.

Application No.: 10/003,021 Filed: November 14, 2001

Page 2

ATTY. DOCKET NO.: INVIT1140-3

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claims 1-40 (Canceled)

41. (Previously Presented) An isolated expression vector, comprising the sequence 5'-CACC linked immediately 5' to a start codon of an open reading frame (ORF), wherein the ORF is linked in-frame to a polynucleotide encoding a heterologous peptide, thereby encoding a fusion protein comprising a polypeptide encoded by the ORF and the heterologous peptide.

42. (Previously Presented) The expression vector of claim 41, wherein the ORF encodes a full length polypeptide.

43. (Previously Presented) The expression vector of claim 41, wherein the ORF lacks a stop codon.

44. (Canceled)

45. (Previously Presented) The expression vector of claim 41, wherein the heterologous peptide comprises an affinity purification tag or an epitope tag.

46. (Previously Presented) The expression vector of claim 41, wherein the heterologous peptide comprises a polyhistidine tag, a chitin binding domain, glutathione-S-transferase, biotin, or a V5 epitope.

In re Application of: PATENT ATTY. DOCKET NO.: INVIT1140-3 Fernandez et al.

Application No.: 10/003,021

Filed: November 14, 2001

Page 3

47. (Previously Presented) The expression vector of claim 41, further comprising a polynucleotide encoding an endopeptidase recognition sequence linked in-frame between the ORF and the polynucleotide encoding the heterologous peptide.

- 48. (Previously Presented) The expression vector of claim 41, which is a eukaryotic expression vector or a prokaryotic expression vector.
- 49. (Previously Presented) The expression vector of claim 41, which is suitable for prokaryotic expression and eukaryotic expression.
- 50. (Previously Presented) The expression vector of claim 41, which is suitable for expression in bacteria cells, fungi, insect cells, yeast cells, plant cells, or mammalian cells.
- 51. (Previously Presented) The expression vector of claim 41, further comprising a promoter, an enhancer sequence, a selection marker sequence, an origin of replication, an epitope-tag encoding sequence, an affinity purification-tag encoding sequence, or a combination thereof.
- 52. (Previously Presented) The expression vector of claim 51, wherein the promoter is a constitutive promoter or an inducible promoter.
- 53. (Previously Presented) The expression vector of claim 52, wherein the constitutive promoter is a T7 promoter, a  $\beta$ -lactamase gene promoter, a bacteriophage  $\lambda$  int promoter; a chloramphenicol acetyl transferase gene promoter, an SV40 promoter, an RSV promoter or a CMV promoter.
- 54. (Previously Presented) The expression vector of claim 52, wherein the inducible promoter is a trp promoter, a recA promoter, a lacZ promoter, a lacI promoter, an araC promoter, an I-amylase promoter, a metallothionein I gene promoter, a herpesvirus TK promoter, an SV40

PATENT ATTY. DOCKET NO.: INVIT1140-3

Application No.: 10/003,021 Filed: November 14, 2001

Page 4

early promoter, a yeast gall gene promoter, an EF1 promoter, or an ecdysone-responsive

promoter.

55. (Previously Presented) The expression vector of claim 51, wherein the selection

marker confers resistance to ampicillin, tetracycline, kanamycin, bleomycin, streptomycin,

hygromycin, neomycin, or Zeocin<sup>TM</sup> antibiotic.

56. (Previously Presented) The expression vector of claim 51, wherein the selection

marker is a hisD gene sequence or a URA3 sequence.

57. (Previously Presented) The expression vector of claim 51, wherein the origin of

replication (ori) is an Escherichia coli oriC ori, a yeast 2µ ori, a yeast ARS ori, and sf1 ori, or an

SV40 ori.

58. (Previously Presented) A library of expression vectors, comprising a plurality of

expression vectors, wherein each expression vector comprises the sequence 5'-CACC linked

immediately 5' to a start codon of an open reading frame (ORF), wherein said ORF is linked in-

frame to a polynucleotide encoding a heterologous peptide, thereby encoding a fusion protein

comprising a polypeptide encoded by the ORF and the heterologous peptide, and wherein an

ORF of an expression vector in the plurality is the same or different from open reading frames of

other expression vectors in the plurality.

Claims 59-66 (Canceled)